
Subject: Mod-related changes in scripts 4.1

Posted by [jonwil](#) on Thu, 28 Nov 2013 05:18:06 GMT

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Here is a list of changes in scripts 4.1 (which has just entered private beta testing) that modders and scripters might care about: (note that some of these new changes will require 4.1 on the client, I dont have time to analyze each change and figure out if it does or doesn't need 4.1)

We are now using Visual C++ 2012 to compile scripts.dll. Anyone who wants to be able to continue to do scripts.dll coding once the next build comes out (whenever that is) should obtain Visual Studio 2012 and install the updates for it (yes the Express Edition of Visual Studio 2012 will work for compiling scripts 4.1)

Support for a new file called e.g. C&C_City_surface.ini (or whatever for each map). This is read per-map and if it exists should be a full copy of surfaceeffects.ini with any desired per-map changes. This file IS cheat checked just like surfaceeffects.ini.

Changes to make Commands->Set_Obj_Radar_Blip_Color and Commands->Set_Obj_Radar_Blip_Shape work over the network (the old obsolete broken code for doing this is gone and as such Set_Obj_Radar_Blip_Shape_Player/Set_Obj_Radar_Blip_Color_Player are also gone)

Support for a new file called e.g. C&C_City_tt.ini (or whatever for each map). This is read per-map and allows you to use the sidebar, Air Factory objects, Naval Factory objects and a few other things on a per-map basis. Yes this means you can have a separate helipad which controls whether you can build helicopters (i.e. if its dead, you cant build helicopters anymore, if its alive and the war factory is dead, you can still build helicopters even though you cant build ground vehicles)

The following keywords are valid in the per-map ini file:

AirFactoryVehicleLimit
NavalFactoryVehicleLimit
VehicleFactoryVehicleLimit
BuildingRefillDisable
NodBuildingRefillDisable
GDIBuildingRefillDisable
NewTechLevel
GDIUpArrowTexture
GDIDownArrowTexture
GDIBackgroundTexture1
GDIBackgroundTexture2
NODUpArrowTexture
NODDownArrowTexture
NODBackgroundTexture1
NODBackgroundTexture2
AlternateSelectEnabled
GDIAlternateSelectTexture1
GDIAlternateSelectTexture2
GDIAlternateSelectTexture3

GDIAlternateSelectTexture4
NODAlternateSelectTexture1
NODAlternateSelectTexture2
NODAlternateSelectTexture3
NODAlternateSelectTexture4
Sidebar
SidebarSoundsEnabled
SidebarRefillSound
SidebarInfantrySound
SidebarVehicleSound

This per-map tt.ini file IS cheat checked (just like the global tt.ini file)

A new engine call (Set_Stealth_Active) on SmartGameObj objects that allows you to basically "deactivate" stealth (i.e. you set this flag and it turns on/off the stealth without affecting its enable/disable state etc)

A special Custom you can listen for called CUSTOM_EVENT_REFILL to detect when someone refills so you can do things if you want. No you dont get to block the refill, just detect that its happened.

A new hud.ini keyword CenterMainMenu. Setting this will cause the main menu options to be centered instead of left-justified.

Some logic for Underground units (as seen in C&C: Reborn).

A new Force_Vehicle_Entry engine call that will force a player into a vehicle (you pass in the soldier and the vehicle). For vehicle exit, keep using the Soldier_Transition_Vehicle engine call as normal.

New flag in LE for per-team visibility. Set the "Team Visibility Mode" to "Default" and everyone can see it. Set it to "Visible Only To Friendlies" and only units on the same team as the object can see it. Set it to "Visible Only To Enemies" and only units not on the same team can see it.

New engine call (Set_Can_Drive) for VehicleGameObj objects. Set this to false and this will cause the vehicle to ignore any movement commands.

New engine call Create_Lightning which is used to create a lightning bolt through code (similar to the lightning bolt effect used by e.g. the Volt Auto Rifle)

New value in LE CollisionDamageMultiplier on explosions. This lets you change the collision damage multiplier that gets used for certain things in the explosion logic (i.e. when an explosion goes through walls and does less damage to stuff on the other side than would have happened had the wall not been there)

New engine call (Get_Bounds) for BuildingGameObj objects. This returns an AABox representing the bounding box of the building.

Smooth skinning support (I dont know the exact details other than that its something Saberhawk wrote and that it relies on certain features in the W3D export plugin for 3DS MAX)

Add support for some new radar blip shape types (these only work if you are using the hud.ini custom HUD to override the stock radar)

New flag in LE RequiresSilo on beacons. If this is set, the beacon wont be able to be deployed unless the team has a building of type "Shrine" and that building is still alive.

New engine call Set_Global_Stealth_Disable which will disable/enable stealth on a global basis.

New building type "Superweapon". This is mostly intended to allow you to have an animated missile silo door, ion canon satellite dish or other animated bit that animates when the superweapon is fired but which is still part of the building and will do damage to the building when you shoot it.

New command line options for level edit to allow it to be used in a "batch" mode. Pass -mod <name> to load a specific mod automatically. Pass -map <name> to load a specific map automatically. Pass -save to force an auto-save. Pass -light to force it to do "compute vertex solve" before saving.

This (combined with makemix.exe) is intended so you can build a map automatically (or even an entire mod/TC)

New tt.ini keyword NoPowerCostMultiplier which lets you set the cost multiplier that gets applied when the power plant is dead.

Rewrite/improve makemix

Improvements to the way LE handles temp presets. temps20.ddb is now gone and each map in a mod package has its own set of temp presets (the intent is to make things less likely to screw up or go wrong)

Support for giving projectiles a width/height/depth

Support for vehicles to use the same hitbox/bones.ini logic as infantry (so you can have some parts of a vehicle being weaker than others)

New tool called w3dviewer that basically exists as a way to display a w3d file outside of the engine but using all the rewritten rendering engine code we have.

Add a "cost" field to Team Purchase Settings (the infantry that are normally free)

New tool called lsdview that basically exists as a way to display an lsd file outside of the engine but using all the rewritten rendering engine code we have. (the lsd file contains all the terrain and tiles and static data)

New value in LE on vehicles, FactoryRideHeight. Use this to set the right height used when the

vehicle is first spawned. Mostly this exists to avoid some issues with certain vehicles in C&C: Reborn.

Add tt.ini keyword DisableSP to disable the single player button (for stand-alone mods that have no single player)

Increase the number of engine/rotor bones for VTOL vehicles from 4 to 6.

New values in LE on powerups, GrantShieldStrengthMaxIsScaled and GrantHealthMaxIsScaled. When turned off, it makes the max health/max shield strength granted by powerups linear instead of scaled.

New values in LE on "General" settings, "GDI Spawn Character" and "Nod Spawn Character". Use these to override the default multiplayer spawn characters for each team.

Add new engine call Wake_Up_Objects_In_Box (this is used for destroyable bridge logic in various mods so that the objects that are on the bridge when its destroyed will properly run their physics logic and will fall through the bridge if necessary)

Made Commands->Set_Is_Visible support vehicles and removed Set_Vehicle_Is_Visible.

Anyone with any questions about these features feel free to ask in here and I will do my best to answer them as time permits.